_CREEP_ING TOWARDS THE MACRO RESPONSE MONTE CARLO (MRMC) METHOD FOR ELECTRON TRANSPORT, M.M. Svatos, W.P. Chandler, T.R. Mackie, J. Rathkopf, C. Hartmann-Siantar, Lawrence Livermore National Laboratory. The Macro Response Monte Carlo method relies on pre-computation of probability density functions of electrons emerging from a sphere (or *kugel*) to achieve electron transport results that are both faster and more accurate then other methods. The division of labor into two seperate stages has been called a Local-to-Global approach. The "local", or pre-compuatation stage, is done only once to build a library of PDFs for use in the "global" (or CT-tracking) stage.The local calculation for the MRMC method is done with a single scatter code, CREEP. CREEP models all ionization, elastic scattering, and bremsstrahlung events individually by sampling from LLNL databases. A version of CREEP for slab geometries is being released publicly. Benchmarks and results highlighting the extreme accuracy of this code will be shown. Also included will be a discussion of integration of CREEP results into the MRMC method to provide a fast and accurate electron transport package for the code PEREGRINE, an all-particle Monte Carlo code under development at LLNL which will be used for patient treatment planning.

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